

# JOURNAL OF BUSINESS LOGISTICS

## CALL FOR PAPERS: SPECIAL TOPICS FORUM

### Blockchain: Applications and Strategies for Supply Chain Research and Practice

Few technological developments in the past two decades have intrigued Supply Chain and Logistics (SC&L) managers as much as Blockchain. In fact, some have called it the most important invention since the Internet itself. Several articles have appeared recently in the popular press (e.g., *Harvard Business Review*, *Forbes*, and the *Wall Street Journal*) discussing the potential of Blockchain in the management of SC&L. Similarly, leading companies known for supply chain excellence (e.g., WalMart, Toyota) have been testing Blockchain applications, and major IT companies (e.g., Microsoft, IBM, Deloitte) have either developed or are in the process of developing product offerings that can help companies implement Blockchain across their supply chains.

At its heart, a Blockchain is a distributed database of records (a public ledger of sorts), that represents all transactions or digital events that have been executed and shared among participating parties. Once entered into the Blockchain, the information cannot be deleted / erased. By extension, the Blockchain for a product shall contain a definite and verifiable record of *every single transaction* ever made in the life of the product. Consider for example, the Blockchain pilot currently being considered by WalMart, regarding pork traceability through production, distribution, and retail. By making the pork vendors participants in the Blockchain, WalMart aims to create a "chain" of transactional information, wherein each link in the chain is a "block" (e.g. how the animal was raised, its processing and handling, and its journey through the supply chain). Given the data is logged in a distributed ledger, no single user / entity is able to unilaterally delete it. However, many users may access, inspect, or even add additional blocks to the data. The end result is a high level of transparency, accountability, and visibility.

Despite the tremendous promises of Blockchain technology in the Supply Chain, several challenges remain. To start with, given the relative newness of the technology itself, SC&L managers are still looking for areas where Blockchain can provide the most value. SC&L scholars therefore, have a unique opportunity to serve as thought leaders in this area, by laying the groundwork for managerial understanding, and also setting the course that SC&L Blockchain practice takes in the coming decades.

This STF solicits manuscripts emphasizing all methodologies, including empirical (primary as well as secondary / archival), qualitative (inductive as well as deductive), simulation, and analytical modeling. In addition, given the relative newness of the focal research area, solid conceptual manuscripts that lay out the agenda for subsequent practice are also welcomed. The major topics of interest include, but are not limited to:

- Blockchain applications in manufacturing, retail, and services including banking and finance. For example, the value of authenticity in multi-ingredient supply chains (e.g., food manufacturing and distribution), and Blockchain's ability to assist in this regard.
- Blockchain applications in product tracing (e.g., product safety, supply chain visibility, transparency, etc.)
- Investigations into the most common sensors in use in today's supply chain (e.g., GPS, Smart labels, etc.). How are they being used and what are gaps in their application? How can / cannot Blockchain fill these gaps?
- What are stack ranked scenarios where there are contractual disputes or satisfaction issues between supply chain partners today and what are the contributing factors? How can Blockchain help with these challenges?
- Critical success factors germane to Blockchain – for example, how open are supply chain participants to sharing data (a key ingredient of Blockchain success)? What insights / types of visibility into the supply chain do channel partners want today but cannot get?
- Blockchain in procurement (e.g., ethical sourcing)
- Use of ledgers in Blockchain
- Blockchain for public services and non-profit
- Product safety monitoring, anti-counterfeiting, stolen merchandise recovery, and general fraud prevention with Blockchain
- Interface of Blockchain with other supply chain technologies (e.g., RFID, ERP, etc.) and other aspects of the supply chain, and technology constraints companies encounter when evaluating Blockchain.
- Case studies of Blockchain implementation in the supply chain, broadly defined (successes, failures, startups, etc.)

All manuscripts submitted to the STF will go through *JBL's* double-blind review process. Given the strong managerial leaning of Blockchain, authors can also expect that every manuscript will receive at least one review from a high-ranking industry executive currently working on Blockchain. The industry review will focus on the managerial contributions of the manuscript, its value to industry, and the feasibility of the recommendations. Therefore, a solid managerial implications section is expected for every submitted manuscript.

The submission date for full consideration will be September 1, 2018. Please submit your paper via Manuscript Central. Note that it is a special topic forum submission. You can learn more by e-mailing the guest editor at [shashank.rao@auburn.edu](mailto:shashank.rao@auburn.edu), or the other STF editorial team members at [senthil@auburn.edu](mailto:senthil@auburn.edu), [jpatton@auburn.edu](mailto:jpatton@auburn.edu), or [yorkerhodes@microsoft.com](mailto:yorkerhodes@microsoft.com).